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## Hardware Specifications

FCC ID: [MSQ-RTAC56U](#) (or [MSQ-RTAC56UA](#))

- CPU: Broadcom BCM4708A0 (800 MHz, 2 cores)
- Flash / RAM: 128 MiB / 256 MiB
- WAN: 1 port, 10/100/1000
- LAN: 4 ports, 10/100/1000
- USB: 2 ports, USB 3.0, USB 2.0
- WI1: Broadcom BCM4352, an+ac
  1. MIMO config: 2x2:2
  2. Antenna connector: none
- WI2: Broadcom BCM43217, bgn
  1. MIMO config: 2x2:2
  2. Antenna connector: none
- ETH chip1: Broadcom BCM4708A0
- Switch: Broadcom BCM4708A0
- Power Supply: 19V (DC) @ max 1.75A

### RT-AC56S

This uses the single-core CPU variant (BCM47081A0), has 128 MiB RAM, and different power supply. There is no evidence that it is supported at all, despite the FCC ID being listed as MSQ-RTAC56UA (CPU in the Internal Photos is BCM4708A0). **Do not try AC56U firmware on an AC56S unless willing to brick.** AsusWRT-Merlin might work on the AC56S with AC56U firmware, but no official support is mentioned.

## Flashing DD-WRT Firmware

Brainslayer builds for ARM Broadcom routers have their own directory. Do not use the `/broadcom*/` directories. Example: [asus\\_rt-ac56u-firmware.trx](#) tested [here](#) but this isn't a recommendation. New build links:

here.

Kong also supports the AC56U: [dd-wrt.v24-K3\\_AC\\_ARM\\_STD.bin](#)

- Flash through the GUI or using the bootloader recovery mode (see below)
- Reset after flashing; do not 30-30-30
- Set a password, and then configure the router.

## Reset

Do not use 30-30-30 hard reset on any ARM router.

1. Power off the unit.
2. Press and hold on to the WPS button.
3. While holding down the WPS button, power on the unit.
4. Keep holding the WPS button until the power led starts to blink a few times.
5. When the power led starts blinking / flashing, release the WPS button.

## Recovery Mode Flashing

1. Reset the router (see above)
  2. Power off the unit.
  3. Press and hold on to the reset button.
  4. While holding down the reset button, power on the unit.
  5. Keep holding the reset button until the power led starts to blink on and off repeatedly (recovery mode).
  6. Plug the computer running the ASUS recovery tool into a LAN port on the router.
  7. Run the ASUS Recovery software, select the correct firmware, and click the "Upload" button.
  8. The ASUS recovery software should detect the router and start to upload.
- If it doesn't detect the router, try disabling the firewall, or disable then re-enable the network adapter.
1. Once flashed and rebooted, set your network adapter settings back to DHCP.
  2. Reset again (see above), and open 192.168.1.1 in the browser.

## OEM Firmware Installation

1. Download the Asus firmware and [recovery tool](#) (or use any TFTP utility)
2. Set a static IP of e.g. 192.168.1.5, subnet 255.255.255.0 (Gateway & DNS blank or 192.168.1.1)
3. Do a reset and use the Asus recovery mode to flash the OEM firmware.

## VLAN Configuration

<https://www.dd-wrt.com/phpBB2/viewtopic.php?p=907650#907650>

# Overclocking

The following commands should be run via SSH or Telnet:

```
nvramp set clkfreq=1200,800 (click enter)
nvramp commit && reboot (click enter) - router may freeze, wait several minutes before rebooting m
```

According to the thread below, monitor CPU temp, it should stay below ~60 degrees Celcius. For comparison  
- the stock is 800 MHz CPU / 533 MHz Memory

<https://www.snbforums.com/threads/overclocking-rt-ac56u.12578/>